

injecting a flow of the composite resin material into a mold, the composite resin material being injected into the mold through a mold gate and flowing within the

Sub
D1
C1
mold in a manner characterized by a maximum flow length L to fill the mold substantially completely and form the thin injection molded article having an average thickness t, the maximum flow length L and the average thickness t of the thin injection molded article satisfying the inequality: $L/t \geq 70$;

treating the thin injected molded article to produce a substantially solid composite resin material within the mold, the solid composite resin material having a tensile modulus of at least 2.55 GPa; and

removing the thin injected molded article from the mold.

8. (NEW) A method for forming a thin injection molded article according to Claim 7, wherein the organic agent is selected from a group of organic onium ions consisting of hexylammonium, octylammonium, 2-ethylhexylammonium, decylammonium, dodecylammonium, laurylammonium, hexadecylammonium, octadecylammonium, dioctyldimethylammonium, trioctylammonium, dioctadecyldimethylammonium, trioctadecylammonium, tetraethylphosphonium, triethylbenzylphosphonium, tetra-nbutylphosphonium, tri-n-butylhexadecylphosphonium and tri-n-butylbenzylphosphonium ions.

REMARKS

Claims 1-8 remain pending in the present application. Claims 5-8 are new. Basis for the amendments and new claims can be found throughout the specification, claims and drawings as originally filed.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abolins (US 4,692,490) in view of Takekoshi et al. (US 5,707,439 or 5,530,052). Applicant respectfully traverses this rejection by the Examiner.

Applicant encloses herewith a Rule 132 Declaration executed by Mr. Makoto Kato, one of the coinventors. In the Declaration, the composition of Example A corresponds to the basic resin composition described in Abolins. In addition to the basic resins, the composition of Example C contains clay (inorganic clay) as taught in Abolins, and the composition of Example B contains an organic clay as used in the present invention. As is seen from the results in Table 2 on page 4, the composition of Example C which includes inorganic clay exhibits a dielectric breakdown strength of 39.5, while the composition of Example A, containing no clay material, exhibits a higher dielectric breakdown strength of 42.0. The composition of Example B, the present invention, exhibits a dielectric breakdown strength of 45.5 which is much higher than those of both Examples A and C. That is to say, the composition of Example B, according to the present invention, exhibits a superior dielectric breakdown strength as compared with that of Example A containing no clay material, while the composition of Example C exhibits even an inferior dielectric breakdown strength as compared with

that of Example A. This is the surprising and unexpected results of the present invention.

Takekoshi et al. teaches that the use of an organic clay improves the mechanical strength, but neither reference teaches nor suggests the improvement in the dielectric breakdown strength which is achieved by the present invention.

Thus, Applicant believes Claims 1-4 patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka et al. (US 4,483,958) or Chano et al. (US 5,952,417) in view of Takekoshi et al. (US 5,707,439) or 5,530,052), and further in view of Abolins (US 4,692,490) or Mizutani et al. (US 2001/0014389 A1). Applicant respectfully traverses this rejection by the Examiner

Kosaka et al. does not teach the use of an organic clay but merely describes the use of an inorganic clay. Also, Chano et al. merely describes the use of clay (inorganic clay) as an inorganic filler. In this connection, it should be noted that the use of inorganic clay does not attain improvement in the electrical insulating properties as is clearly seen from the above discussion (Example A versus Example C). Further, Kosaka et al. and Chao et al. do not disclose, teach or suggest the regulation of L/t to a value not greater than 70.

Abolins merely describes the use of inorganic clay, as discussed above. Takeoshi et al. describes the use of an organic clay but neither teaches nor suggests the regulation of L/t to a value not greater than 70. Mizutani et al merely describes the use of inorganic clay, but neither teaches nor suggests the use of an organic clay.

Thus, these references taken alone or combined do not render the present invention obvious.

Thus, Applicant believes Claims 1-4 patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

NEW CLAIMS

New Claims 5-8 are process claims directed to the present invention.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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